

REMARKS/ARGUMENTS

Claims 1-38 are now in the application. Claims 1, 4, 7, 13-16, 29-31, 33 and 36-38 are amended. Claims 1, 16 and 31 are independent claims.

Support for Amendments

Support for the amendments to claims 1, 4, 7, 13-16, 29-31, 33 and 36-38 may be found in the specification as filed.

In particular, support for the amendments to independent claims 1, 16 and 31 may be found in, for instance, Figure 2, and in the specification on page 13, lines 1 – page 14, line 14.

Claim Rejection Under 35 U.S.C. 112.

The Office Action rejects claims 1-38 under 35 U.S.C. 112, second paragraph.

In particular, the Office Action rejects claims 4, 19 and 33 stating that it is not clearly indicated whether “an HttpSession object” refers to “an HttpSession” in claim 2, lines 1-2.

In claim 4, line 2, “an HttpSession object” has been amended to “said HttpSession object”.

Similar amendments have been made in claims 19 and 33.

Claims 4, 19 and 33, therefore, are now in compliance with 35 USC 112, second paragraph. Applicants request that this rejection be withdrawn and claims 4, 19 and 33 allowed.

As the Office Action does not provide further details as to why the remaining claims of claims 1-38 were rejected under 35 U.S.C. 112, applicants deduce that by the amendments to claims 4, 19 and 33, all of claims 1-38 are now in compliance with 35 USC 112, second paragraph. Applicants request that this rejection be withdrawn and claims 1-38 allowed.

Claim Rejection Under 35 U.S.C. 103(a)

The Office Action rejects claims 1-11, 13-25, 27-34 and 36-38 as obvious in view of Chang et al (US Patent 6,715,082) and Applicant Admitted Prior Art (AAPA).

Chang teaches a security token server in which identity information is cached in the memory of an authorization, authentication and accounting (AAA) server. This allows one time password (OTP) authentication to be used to set up multiple sessions for a user prior to the cached identity information expire.

Applicants invention, in the embodiment of amended claim 1, is a method of efficiently allowing session data to be maintained in a server system that has multiple redundant network servers, any of which may serve data to a client.

In this embodiment, in processing a request from a client, session data is cached by being stored in a local memory of the network server processing the request. That way future requests can be processed rapidly by that network server using the cached session data.

A copy of the session data is also stored in a database that is accessible by all the servers. If a latter request from the same client is processed via a different network server, that network server will initially be able to use the session data from the database to maintain the session.

When the particular session ends or expires, the network servers expire the cached session data. To avoid unnecessary traffic to the system database, the network servers do not, however, expire the copy of the session data that was stored in the database. Expiration of the copy of the session data stored in the database may, for instance, be done later, when the load on the database is low.

Applicants amended claim 1 recites:

(1) storing in a memory local to said first network server, session data for a plurality of sessions serviced by said at least one network server

(2) storing in a database local to said database server, copies of said session data for a plurality of sessions serviced by said at least one server;

(3) performing contemporaneous time out testing of particular session data stored in said memory local to said first network server for one of said plurality of sessions every time a request is received for said particular session data prior to utilizing said particular session data, and not invalidating a copy of said particular session data in said database even if said contemporaneous testing has indicated that the corresponding session has timed out; and

(4) performing an invalidation procedure on said copies of said session data in said database at a particular time that is independent of when said contemporaneous testing is performed.

The Office Action does not show where Chang teaches storing session data in a local memory and storing a copy of the session data in a database. Not does Chang teach that, when, testing of the session data stored locally determines that the session has timed out, the system should take the counter-intuitive step of not immediately invalidating the copy of the session data stored in the database, but instead performing an invalidation procedure on the copies of the session data at a time that is independent of when the testing of the locally stored session data occurs.

As these combined steps are also not Applicant Admitted Prior Art, the Office Action does not, therefore, show how Chang anticipates applicants' invention embodied in claim 1. Applicants, therefore, request that this rejection be withdraw and claim 1 allowed.

Corresponding amendments have been made to independent claims 16 and 31. For the reasons detailed above, the Office Action does not show how Chang anticipates applicants' invention embodied in claim 16 and 31. Applicants, therefore, request that this rejection be withdraw and claim 16 and 31 allowed.

As dependent claims 2-15, 17-30 and 32-38 depend from, and include all the limitations of allowable independent claims, they too are allowable. Applicants, therefore, request that these rejections be withdrawn and claims 2-15, 17-30 and 32-38 allowed.

Summary

Therefore in view of the foregoing amendments and remarks, applicants respectfully request entry of the amendments, favorable reconsideration of the application, withdrawal of all rejections and objections and that claims 1-38 be allowed at an early date and the patent allowed to issue.

Respectfully submitted,

Gabriel G. Montero, et al.

By



Roy J. Rosser

Agent for Applicant

Reg. No. 53,533

(609) 786-1086 (Direct Dial Tel. No.)

Synnestvedt Lechner and Woodbridge
P. O. Box 592
Princeton, NJ 08542-0592
Tel. (609) 924-3773
Fax (609) 924-1811

Cc: Inventors